

## REMARKS

The Final Office Action mailed on April 15, 2009 has been received and its contents carefully noted. From the Summary page, claims 1-37 are pending and indicated as rejected.

By this response, claims 1, 10, 35 and 36 have been amended. Claims 5 and 9 have been canceled and incorporated into claim 1. The features of claim 5 describe properties of the silicon dioxide carrier. The features of claim 9 describe a granule being an adsorbate. In addition, amended claim 1 further describes a substance enveloped within an adsorbate. Support for these amendments can be found in para. [1101] of the PG Pub. 2006/0229210.

In view of the claim amendments and remarks provided herein, Applicants respectfully request withdrawal and reconsideration of the rejections.

### *Claim Rejections under 35 U.S.C. § 103(a)*

I. Claims 1-2, 4-14, 20, 26-27 and 32-37 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Roman (US 6,171,602) in view of Deller et al. (US 5,776,240). The rejection as to claims 5 and 9 is moot due to claim cancelation. The rejection as to claims 1-2, 4, 6-8, 10-14, 20, 26-27 and 32-37 is respectfully traversed.

The present invention of claim 1, as amended, describes a granule, which is an **adsorbate**, comprising pyrogenically prepared silicon dioxide as a carrier. The carrier has a low water content, high purity and good flow properties. See paras. 3-7 of Applicants' Publication 2006/0229210. The carrier has at least one substance such as a foodstuff additive, a chemical intermediate and a plant protection agent adsorbed onto a surface of the carrier, or **enveloped therein**. See paras. 1101 and 1108.

The silicon dioxide carrier has a pore volume of 0.5 to 2.5 ml/g. In addition, the silicon dioxide carrier has a pore size distribution that is less than 5% of the total pore volume and has a pore diameter of less than 5 nm, with the remainder meso- and macropores. The pH ranges between 3.6 to 8.5. Further, the tamped density is 220 to 700 g/l.

Applicants refer to their specification for support of the claimed subject matter. See claims 12-31; see also para [1101] of Applicants' PG Publ. 2006/0229210. Since amended claim 1 recites that the substance is adsorbed on the granule/adsorbate's surface, or enveloped therein, the resultant forces of attraction between particles or droplets of the substance are reduced. Effectively, flow properties are improved. *Id.* A review of each of Roman and Deller fails to teach or suggest the claimed features mentioned above. Accordingly, one having ordinary skill in the art would not have combined these references in order to render amended claim 1 *prima facie* obvious. As such, amended claim 1 patentably distinguishes thereover.

Second, Applicants maintain their assertion that the claimed invention achieves unexpected results as to better flow characteristics and bulk density. Applicants kindly refer to their arguments presented in the response dated February 6, 2009, particularly at section **IA**, which is incorporated by reference. Amended claim 1 further patentably distinguishes thereover.

Third, Applicants again urge impermissible hindsight (i.e., suggestion to combine derived from the present invention) to combine the Deller reference with Roman. Page 3 of the Office Action admits Roman's failings for using of pyrogenically prepared silica. Deller was purportedly introduced for teaching pyrogenically prepared silica granules which can be used as an adsorption media. See col. 1, ll. 28-29.

Applicants submit that they are quite familiar with the contents of Deller since the present invention and Deller share a common assignee. Likewise, reference is made to para. 8 of Applicants' publication as being the equivalent of the corresponding EP document (kindly note the same EP document is mentioned in para. 10, where the number has been misspelled).

A fair reading of Deller suggests that pyrogenically prepared silicon dioxide granules are used as supports for polymerization catalysts, and in particular, as supports for catalysts for the production of polyethylene. See col. 1, ll. 48-50; See also clm. 14; See also col. 6, ll. 20-22. However, Deller is completely silent concerning pyrogenically prepared silica granules to be used as a carrier, and more especially, as a carrier for food stuff additives, chemical intermediates and plant protection agents. That is, the suggestion could only have been derived from Applicants' present invention. Therefore, the combination of Roman and Deller invokes

impermissible hindsight and would not have rendered amended claim 1 been *prima facie* obvious to one of ordinary skill in the art. Amended claim 1 further patentably distinguishes thereover. In view of the foregoing, Applicants earnestly solicit withdrawal and reconsideration of the rejection as to amended claim 1 and claims 2, 4, 6-8, 10-14, 20, 26-27 and 32-37, dependent thereon.

**II.** Claims 1-3, 28 and 30-31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Minemoto (JP 02049707) in view of Deller et al. (US 5,776,240). The rejection as to claims 1-3, 28 and 30-31 is respectfully traversed.

The Office Action admits that Minemoto fails to teach the use of pyrogenically prepared silica. Deller is purportedly asserted as teaching pyrogenically prepared silica granules which can be used as adsorption media.

Applicants refer to their arguments provided in section I, *supra*, concerning the newly claimed features, unexpected results and impermissible hindsight to combine the references. Thus, amended claim 1 patentably distinguishes thereover. Accordingly, Applicants courteously solicit withdrawal of the rejection as to amended claim 1 and claims 2-3, 28 and 30-31, dependent thereon.

**III.** Claims 1, 19, 21, 29 and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Park et al. (US 5,654,258) in view of Deller et al. (US 5,776,240). The rejection as to claims 1, 19, 21, 29 and 34 is traversed.

The Office Action admits that Park teaches a composition comprising trifluralin (a herbicide) in porous silica carrier particles. Park does not teach the use of pyrogenically prepared silica. Deller was introduced as purportedly teaching pyrogenically prepared silica granules which can be used as adsorption media.

Applicants refer to their arguments provided in section I, *supra*, regarding the newly claimed features, unexpected results and impermissible hindsight to combine the references. Thus, amended claim 1 patentably distinguishes thereover.

In addition, Applicants maintain their assertion that Park, the primary reference, fails to disclose the characteristic properties of Applicants' claimed invention in view of amended claim 1. For instance, the carrier particles in Park are preferably finely divided porous particles which consist of primary particles of amorphous silica or of silicates which have been formed by precipitation in water and agglomerated into clusters having a surface area of 100 to 300 m<sup>2</sup>/g. See col. 5, ll. 1-14. Moreover, the silicon has an adsorbed water content of 2-12 wt% and described to be Sipernat 50s. See Ex. 9 at col. 12.

In contrast, as provided in Applicants' exemplary embodiment in the Results Section of para. 1126, *supra*, the granules, as an **adsorbate**, exhibit no water content. Secondly, Park's granules are made from Sipernat, which are shown in Applicants' Results Section as a comparison example. Thus, Park's Sipernat carrier is clearly inferior to Applicants' carrier. Because neither Park nor Deller suggest the unexpected results provided in Applicants' invention, amended claim 1 patentably distinguishes thereover. In view of the foregoing, Applicants courteously solicit withdrawal and reconsideration of the rejection as to amended claim 1 and claims 19, 21, 29 and 34, dependent thereon

**IV.** Claims 1, 15-18, and 22-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Peterson et al. (US 6,004,584) in view of Deller et al. (US 5,776,240) and the Degussa press release titled "Dry Binder – A New Concept for Pressed Powders" (June 12, 2003). The rejection as to claims 1, 15-18 and 22-23 is respectfully traversed.

The Office Action admits that Peterson discloses a body powder comprising powder carriers such as soy starch, modified corn starch or microcrystalline cellulose (col. 3, ll. 45-50) and binders such as isopropyl or magnesium myristate (col. 6, ll. 55), but fails to disclose pyrogenically prepared silica. There is indicated that the "Dry Binder" press release discloses that fumed silica is an ideal replacement for isopropyl or magnesium myristate as a dry binder because it adsorbs oily components and releases them upon compression. Deller purportedly teaches that pyrogenically prepared silica granules can be used as adsorption media (See col. 1, ll. 28-29).

Applicants refer to their arguments provided in section I, *supra*, regarding the newly claimed features, unexpected results and impermissible hindsight to combine the references. Thus, amended claim 1 patentably distinguishes thereover. Accordingly, Applicants solicit withdrawal and reconsideration of the rejection as to amended claim 1 and claims 15-18, and 22-23, dependent thereon.

V. Claims 1 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Technical Bulletin Pigments No. 31 (Degussa AG, November 1995) in view of Deller et al. (US 5,776,240). The rejection as to claims 1 and 24 is traversed.

The Office Action admits that Technical Bulletin does not teach the use of pyrogenically prepared silica granules. Deller was introduced as purportedly teaching pyrogenically prepared silica granules which can be used as adsorption media.

Applicants refer to their arguments provided in section I, *supra*, regarding the newly claimed features, unexpected results and impermissible hindsight to combine the references. Thus, amended claim 1 patentably distinguishes thereover. As such, Applicants courteously solicit withdrawal and reconsideration of the rejection as to claim 1 and claim 24, dependent thereon.

**CONCLUSION**

All of the stated grounds of rejections have been properly traversed, accommodated, or rendered moot. Therefore it is respectfully requested that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for all allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, in the event that additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. 1.136(a), and any fees required therefore are hereby authorized to be charged to Deposit Account No. 02-4300, Attorney Docket No. 032301.440.

Respectfully submitted,  
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